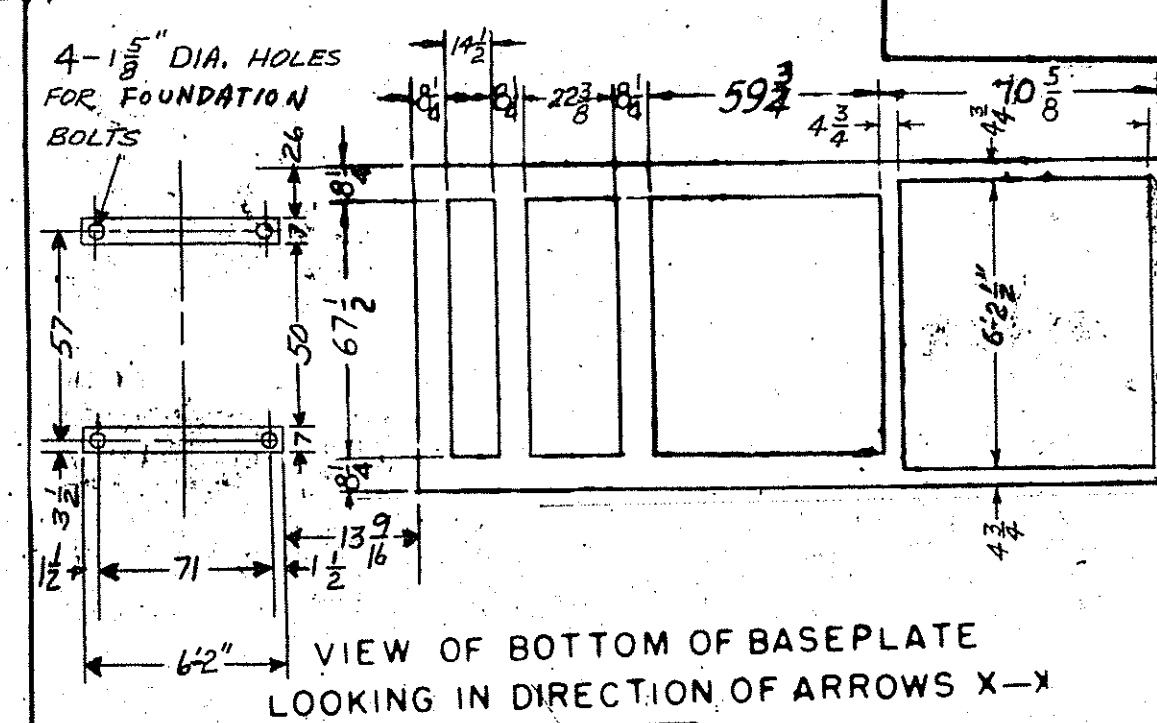
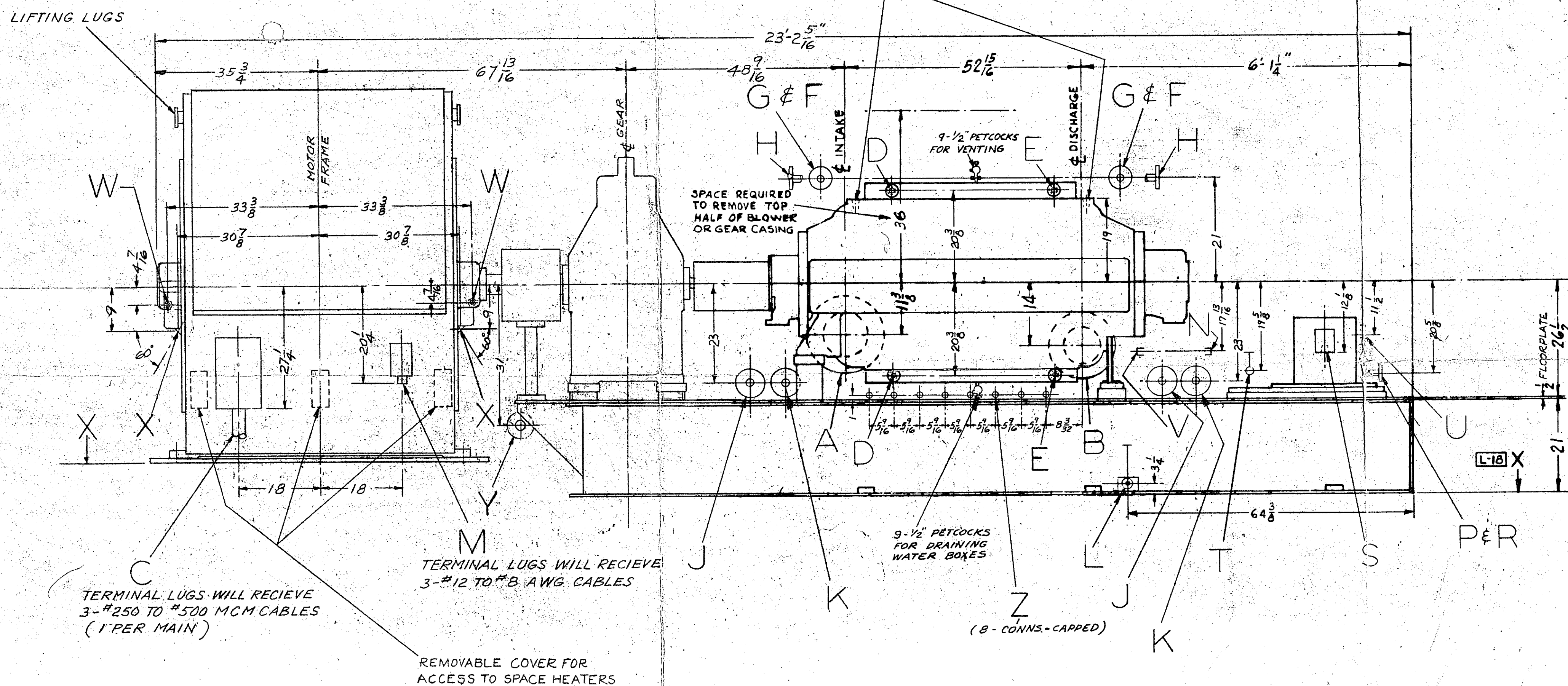


- 1 THIS IS A REFERENCE DRAWING DO NOT USE FOR CONSTRUCTION UNLESS CERTIFIED
- 2 DO NOT SCALE DRAWING FOR DIMENSIONS
- 3 PARTS SHOWN BY DOT DASH LINES ARE FURNISHED BY CUSTOMER
- 4 ALL PIPE FLANGE BOLT HOLES STRADDLE CENTER LINES UNLESS OTHERWISE SPECIFIED
- 5 ALL CONNECTIONS ARE SHOWN FOR PIPING 2" AND SMALLER. ALLOW FOR VARIATIONS UP TO 1" ON THESE DIMENSIONS
- 6 FOUNDATION AND SUPPORTS FOR BASEPATE SHOULD BE DESIGNED SO THAT ALIGNMENT OF UNIT IS MAINTAINED. ALLOWED TO CROSS BRACING OR OTHERS USED ON SUPPORTING MEMBERS CONCRETE, UNDER BASEPATE OR UNDER STEEL COLUMNS IF USED, TO SET THOROUGHLY BEFORE INSTALLING AND WELDING UP
- 7 FOUNDATION BOLTS ARE TO BE FURNISHED BY THE CUSTOMER
- 8 ALL PIPING MUST BE ANCHORED AND/OR SUPPORTED IN SUCH MANNER AS TO PREVENT TRANSMISSION OF STRAINS TO THE UNIT EXPANSION JOINTS MUST BE USED IF NECESSARY
- 9 THESE SEALS MUST BE TIGHT TO PREVENT TRANSMISSION OF VIBRATION BETWEEN BLOWER FOUNDATION AND BUILDING
- 10 UNIT SHOULD BE INSTALLED UNDER THE SUPERVISION OF AN INGERSOLL-RAND COMPANY SUPERINTENDENT OF ERECTION
- 11 CUSTOMER SHOULD SUBMIT FOUNDATION, INSTALLATION AND PIPING DRAWINGS TO THE NEAREST INGERSOLL-RAND OFFICE FOR ENGINEERING COMMENTS. THESE COMMENTS DO NOT REPRESENT AN APPROVAL OF THE DRAWINGS.
- 12 THE BLOWER MUST NOT HANDLE ABRASIVE OR OTHER HARMFUL MATERIAL. CUSTOMER SHOULD INSTALL ALL NECESSARY APPARATUS (FILTERS, FOR ETC.) TO PROTECT THIS REQUIREMENT
- 13 IF THE BLOWER IS IN A COMMON SYSTEM WITH OTHER UNITS OR OPERATES ALONE IN A SYSTEM OF LARGE CAPACITY A CHECK VALVE MUST BE INSTALLED TO PREVENT BACK FLOW
- 14 IF THE BLOWER IS REQUIRED TO OPERATE AT A CAPACITY BELOW THE PUMPING LIMIT, CUSTOMER SHOULD PROVIDE A WASTE VALVE OR BY-PASS LINE FOR DECREASED FLOW. THE WASTE VALVE OR BY-PASS LINE IS PROVIDED FOR USE WHEN REQUIRED TO BE MADE TO AVOID OVER HEATING
- 15 INSTALLATION OF AN OIL CONDITIONER IS RECOMMENDED
- 16 CLEAN, FRESH WATER SHOULD BE PROVIDED TO ALL WATER CONNECTIONS
- 17 BEFORE INITIAL START-UP, CHECK THE ROTATION OF MOTOR WITH MOTOR COUPLING DISCONNECTED IF THE UNIT IS ALLOWED TO RUN BACKWARDS, SERIOUS DAMAGE TO THE REPAIRS WILL BE REQUIRED
- 18 TURBINE DRIVEN AUXILIARY OIL PUMP(S) USED THE STEAM EXHAUST LINE TO ATMOSPHERE MUST BE SHORT, HAVE NO RESTRICTIONS, AND BE SUITABLY DRAINED
- 19 CUSTOMER TO HAVE AVAILABLE FOR LOW COOLER 5.5 GPM OF CLEAN FRESH WATER AT A PRESSURE OF 10 PSIG AND A MAXIMUM TEMPERATURE OF 100°F
- 20 CUSTOMER TO HAVE AVAILABLE FOR HIGH COOLER 50 GPM OF CLEAN FRESH WATER AT A PRESSURE OF 10 PSIG AND A MAXIMUM WORKING PRESSURE OF 75 PSIG
- 21 CUSTOMER TO INSTALL VALVE IN INLET OR DISCHARGE LINE NEAR BLOWER FOR STARTING UP PURPOSES.
- 22 IF THE AUXILIARY OIL PUMP IS TURBINE DRIVEN, CUSTOMER MUST PROVIDE A TRAP IN DISCHARGE LINE TO PREVENT BACK FLOW. TO PERFORM COMPLETE DRAINAGE OF CONDENSATE CUSTOMER ALSO TO MAKE PROVISION FOR KEEPING THIS LINE HOT RIGHT UP TO THE PUMP. CIRCULATE CONDENSATE TO THE PUMP TO PREVENT STARTING OF TURBINE DRIVEN AUXILIARY OIL PUMP
- 23 CUSTOMER TO HAVE AVAILABLE FOR SEAL OIL COOLER 256PM OF CLEAN FRESH WATER AT A PRESSURE OF 10PSIG AND A MAXIMUM TEMPERATURE OF 80°F. COOLER SUITABLE FOR A MAXIMUM WORKING PRESSURE OF 75 PSIG
- 24 CUSTOMER TO HAVE AVAILABLE FOR SEAL OIL COOLER 100 GPM OF CLEAN FRESH WATER TO HAVE AVAILABLE FOR DIAPHRAGM COOLING 100 GPM OF FRESH WATER IN CLOSED SYSTEM AT A PRESSURE OF 55 PSIG AND A MAXIMUM TEMPERATURE OF 100°F. CUSTOMER TO PROVIDE A BY-PASS LINE TO DIAPHRAGMS BY THROTTLE VALVE AHEAD OF EACH CASING WATER BOX AND THE DISCHARGE FROM DIAPHRAGMS MUST BE TO ATMOSPHERIC PRESSURE
- 25 ALL JOINTS BETWEEN MOTOR COVER AND CONDUIT BOX HALVES ARE SEALED WITH DUCCEL CEMENT. WHEN REPAIRING THESE PARTS, RE-SEAL THESE JOINTS WITH DUCCEL CEMENT



DISTRIBUTION OF WEIGHT	
BASEPLATE	15,500 LBS
LOAD ON MOTOR FEET	15,600 LBS
LOAD ON GEAR FEET	3,100 LBS
LOAD ON BLOWER FEET	12,000 LBS
TOTAL WEIGHT	46,200 LBS
APPROX. SHIPPING WEIGHT	49,000 LBS
HEAVIEST PIECE HANDLED DURING	
1. ERECTION - MOTOR ASSEMBLED	15,600 LBS
2. MAINTENANCE - TOP HALF OF BLOWER	5,000 LBS

CUSTOMER'S				CONNECTIONS						
CONNECTION	SIZE	PIPE THD	FLANGE							
			ASA STD	OD	MIN THK.	B. C.	HOLES NO	HOLES DIA	ISO DIA	
A BLOWER INTAKE	10	250" DRILLING	17 1/2	1 1/2	15 1/4	16	1 1/8	FLAT		
B BLOWER DISCH.	8	250" DRILLING	15	1 1/2	13	12	1	FLAT		
C MAIN MOTOR CONDUIT	4	FE-MALE	-	-	-	-	-	-		
D COOLING WATER INLET	1 1/2	FE-MALE	-	-	-	-	-	-		
E COOLING WATER OUTLET	1 1/2	FE-MALE	-	-	-	-	-	-		
F SEAL OIL BY-PASS TO RESERVOIR	1	150" DRILLING	6 1/4	1 1/2	3 3/8	4	3/8	FLAT		
G HIGH PRESSURE SEAL OIL SUPPLY	1	150" DRILLING	4 1/2	1 1/2	3 3/8	4	3/8	FLAT		
H HIGH PRESSURE SEAL VENT	1	150" DRILLING	4 1/4	1 1/2	3 3/8	4	3/8	FLAT		
J INNER SEAL DRAIN TO TRAP	2	150" DRILLING	6	1 1/2	4 3/4	4	3/4	FLAT		
K OUTER SEAL DRAIN TO RESERVOIR	2	150" DRILLING	6	1 1/2	4 3/4	4	3/4	FLAT		
L LUBE OIL RESERVOIR	2	FE-MALE	-	-	-	-	-	-		
M MAIN MOTOR SPACE HEATER CONDUIT	1	FE-MALE	-	-	-	-	-	-		
N LOW BEARING OIL PRESS. ALARM SWITCH CONDUIT	3/4	FE-MALE	-	-	-	-	-	-		
P LUBE OIL TO COOLER	2	150" DRILLING	6	1 1/2	4 3/4	4	3/4	FLAT		
R LUBE OIL FROM COOLER	2	150" DRILLING	6	1 1/2	4 3/4	4	3/4	FLAT		
S MAIN LUBE OIL PUMP MOTOR CONDUIT	3/4	FE-MALE	-	-	-	-	-	-		
T AUX. LUBE OIL PUMP STEAM INLET	3/4	FE-MALE	-	-	-	-	-	-		
U AUX. LUBE OIL PUMP STEAM EXHAUST	3/4	FE-MALE	-	-	-	-	-	-		
V MAIN MOTOR INTERLOCK SWITCH CONDUIT	3/4	FE-MALE	-	-	-	-	-	-		
W MAIN MOTOR LUBE OIL DRAIN	1 1/2	FE-MALE	-	-	-	-	-	-		
X MAIN MOTOR LUBE OIL SUPPLY DRAIN FROM MAIN MOTOR	3/8	FE-MALE	-	-	-	-	-	-		
Y MAIN MOTOR LUBE OIL SUPPLY DRAIN FROM MAIN MOTOR	3/8	150" DRILLING	6	1 1/2	4 3/4	4	3/4	FLAT		
Z BLOWER CASING DRAINS	2	FE-MALE	-	-	-	-	-	-		

WATER EXPANSION TANK	A-170-
WATER EXPANSION TANK LEVEL CONTROL	D-105
WATER PUMP	7309-A
HIGH TEMP LUBE OIL ALARM SWITCH	322100
MAIN SEAL OIL PUMP	322045
PAUK SEAL OIL PUMP	322046
SEAL OVERHEAD TANK	322048
SEAL OIL RESERVOIR	3116-20
LUBE OIL FILTER	321848
SEAL OIL FILTER	321848
LUBE OIL COOLER	311399
SEAL OIL COOLER	311512
SEAL CONTINUOUS DRAINER	321664
SEAL TRANSFER BARRIER ACCUMULATOR	321877
WATER COOLER	322209
WATER COOLING PIPING DIAGRAM	322209

THIS PLAN CORRECT FOR
THE LUMMUS CO.
CUSTOMER'S ORDER NO. 3762-502
I-R ORDER NO. 31-11995
BLOWER SERIAL NO. 1920

QUAN		NAME		PART		DRG		PART		MAT	
		INGERSOLL-RAND CO. PHILLIPSBURG PLANT									
		COMPRESSOR		DIVISION				BLOWER DEPT			
DATE 02.27.75 DRAWN 2. QUICK TRACED ✓		TITLE		GENERAL ARRANGEMENT DRAWING							
CHECKED ✓ APPROVED PA		SCALE 3/4" = 1 FT. DRG NO (50)		SUPERSEDES AND SUPPLEMENTS 304350							
TOL REVISION APPROVAL		66-201		NO. ENG'G REF 303642							

STEAM CONDITIONS:-
150 P.S.I.G. SATURATED
ATMOSPHERIC EXHAUST

ELECTRICAL CONDITIONS:-
3 H.P., 440 VOLTS, 3 PHASE
60 CYCLE, EXPLOS: IN PROG
3450 RPM

THIS PLAN CORRECT FOR

NAME: THE LUMMUS COMPANY
ULTIMATE CUSTOMER: AMERICAN OIL CO
LUMMUS ORDER No. 3762-502
I-R ORDER No. 31-11995
SERIAL No. B-1920

INGERSOLL-RAND COMPANY